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KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,  
MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,  
SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ,  
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patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,  
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,  
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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Published:

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(54) Title: HUMAN RNA METABOLISM PROTEINS (RMEP)

(57) Abstract: The invention provides human RNA metabolism proteins (RMEP) and polynucleotides which identify and encode RMEP. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of RMEP.

## SEQUENCE LISTING

<110> INCYTE GENOMICS, INC.

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LAL, Preeti

TANG, Y. Tom

REDDY, Roopa

BAUGHN, Mariah R.

AZIMZAI, Yalda

<120> RNA METABOLISM PROTEINS

<130> PF-0712 PCT

<140> To Be Assigned

<141> Herewith

<150> 60/139,922

<151> 1999-06-17

<160> 26

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Lys	Gln	Lys	Val	Glu	Gln	Asn	Ala	Ala	Pro	Ser	His	Thr	Lys	Phe
					50				55					60
Ser	Ile	Tyr	Pro	Pro	Ile	Pro	Gly	Glu	Glu	Ser	Ser	Leu	Arg	Trp
					65				70					75
Ala	Gly	Lys	Lys	Phe	Glu	Glu	Ile	Pro	Ile	Ala	His	Ile	Lys	Ala
					80				85					90
Ser	His	Asn	Asn	Thr	Gln	Ile	Gln	Val	Val	Ser	Ala	Ser	Asn	Glu
					95				100					105
Pro	Leu	Ala	Phe	Ala	Ser	Cys	Gly	Thr	Glu	Gly	Phe	Arg	Asn	Ala
					110				115					120
Lys	Lys	Gly	Thr	Gly	Ile	Ala	Ala	Gln	Thr	Ala	Gly	Ile	Ala	Ala
					125				130					135
Ala	Ala	Arg	Ala	Lys	Gln	Lys	Gly	Val	Ile	His	Ile	Arg	Val	Val
					140				145					150
Val	Lys	Gly	Leu	Gly	Pro	Gly	Arg	Leu	Ser	Ala	Met	His	Gly	Leu

	155	160	165
Ile Met Gly Gly	Leu Glu Val Ile Ser	Ile Thr Asp Asn Thr	Pro
	170	175	180
Ile Pro His Asn Gly Cys Arg Pro Arg	Lys Ala Arg Lys Leu		
	185	190	

<210> 8  
<211> 629  
<212> PRT  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte Clone No: 3803409

<400> 8

Met Gly Lys Pro Pro Gly Ser Ile Val Arg Pro Ser Ala Pro Pro			
1	5	10	15
Ala Arg Ser Ser Val Pro Val Thr Arg Pro Pro Val Pro Ile Pro			
20	25		30
Pro Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Val Ile			
35	40		45
Lys Pro Gln Thr Ser Ala Val Glu Gln Glu Arg Trp Asp Glu Asp			
50	55		60
Ser Phe Tyr Gly Leu Trp Asp Thr Asn Asp Glu Gln Gly Leu Asn			
65	70		75
Ser Glu Phe Lys Ser Glu Thr Ala Ala Ile Pro Ser Ala Pro Val			
80	85		90
Leu Pro Pro Pro Pro Val His Ser Ser Ile Pro Pro Pro Gly Pro			
95	100		105
Val Pro Met Gly Met Pro Pro Met Ser Lys Pro Pro Pro Val Gln			
110	115		120
Gln Thr Val Asp Tyr Gly His Gly Arg Asp Ile Ser Thr Asn Lys			
125	130		135
Val Glu Gln Ile Pro Tyr Gly Glu Arg Ile Thr Leu Arg Pro Asp			
140	145		150
Pro Leu Pro Glu Arg Ser Thr Phe Glu Thr Glu His Ala Gly Gln			
155	160		165
Arg Asp Arg Tyr Asp Arg Glu Arg Asp Arg Glu Pro Tyr Phe Asp			
170	175		180
Arg Gln Ser Asn Val Ile Ala Asp His Arg Asp Phe Lys Arg Asp			
185	190		195
Arg Glu Thr His Arg Asp Arg Asp Arg Asp Arg Gly Val Ile Asp			
200	205		210
Tyr Asp Arg Asp Arg Phe Asp Arg Glu Arg Arg Pro Arg Asp Asp			
215	220		225
Arg Ala Gln Ser Tyr Arg Asp Lys Lys Asp His Ser Ser Ser Arg			
230	235		240
Arg Gly Gly Phe Asp Arg Pro Ser Tyr Asp Arg Lys Ser Asp Arg			
245	250		255
Pro Val Tyr Glu Gly Pro Ser Met Phe Gly Gly Glu Arg Arg Thr			
260	265		270
Tyr Pro Glu Glu Arg Met Pro Leu Pro Ala Pro Ser Leu Ser His			
275	280		285
Gln Pro Pro Pro Ala Pro Arg Val Glu Lys Lys Pro Glu Ser Lys			
290	295		300
Asn Val Asp Asp Ile Leu Lys Pro Pro Gly Arg Glu Ser Arg Pro			
305	310		315

Glu	Arg	Ile	Val	Val	Ile	Met	Arg	Gly	Leu	Pro	Gly	Ser	Gly	Lys
				320				325						330
Thr	His	Val	Ala	Lys	Leu	Ile	Arg	Asp	Lys	Glu	Val	Glu	Phe	Gly
				335				340						345
Gly	Pro	Ala	Pro	Arg	Val	Leu	Ser	Leu	Asp	Asp	Tyr	Phe	Ile	Thr
				350				355						360
Glu	Val	Glu	Lys	Glu	Glu	Lys	Asp	Pro	Asp	Ser	Gly	Lys	Val	
				365				370						375
Lys	Lys	Lys	Val	Met	Glu	Tyr	Glu	Tyr	Glu	Ala	Glu	Met	Glu	Glu
				380				385						390
Thr	Tyr	Arg	Thr	Ser	Met	Phe	Lys	Thr	Phe	Lys	Lys	Thr	Leu	Asp
				395				400						405
Asp	Gly	Phe	Phe	Pro	Phe	Ile	Ile	Leu	Asp	Ala	Ile	Asn	Asp	Arg
				410				415						420
Val	Arg	His	Phe	Asp	Gln	Phe	Trp	Ser	Ala	Ala	Lys	Thr	Lys	Gly
				425				430						435
Phe	Glu	Val	Tyr	Leu	Ala	Glu	Met	Ser	Ala	Asp	Asn	Gln	Thr	Cys
				440				445						450
Gly	Lys	Arg	Asn	Ile	His	Gly	Arg	Lys	Leu	Lys	Glu	Ile	Asn	Lys
				455				460						465
Met	Ala	Asp	His	Trp	Glu	Thr	Ala	Pro	Arg	His	Met	Met	Arg	Leu
				470				475						480
Asp	Ile	Arg	Ser	Leu	Leu	Gln	Asp	Ala	Ala	Ile	Glu	Glu	Val	Glu
				485				490						495
Met	Glu	Asp	Phe	Asp	Ala	Asn	Ile	Glu	Glu	Gln	Lys	Glu	Glu	Lys
				500				505						510
Lys	Asp	Ala	Glu	Glu	Glu	Glu	Ser	Glu	Leu	Gly	Tyr	Ile	Pro	Lys
				515				520						525
Ser	Lys	Trp	Glu	Met	Asp	Thr	Ser	Glu	Ala	Lys	Leu	Asp	Lys	Leu
				530				535						540
Asp	Gly	Leu	Arg	Thr	Gly	Thr	Lys	Arg	Lys	Arg	Asp	Trp	Glu	Ala
				545				550						555
Ile	Ala	Ser	Arg	Met	Glu	Asp	Tyr	Leu	Gln	Leu	Pro	Asp	Asp	Tyr
				560				565						570
Asp	Thr	Arg	Ala	Ser	Glu	Pro	Gly	Lys	Lys	Arg	Val	Arg	Trp	Ala
				575				580						585
Asp	Leu	Glu	Glu	Lys	Lys	Asp	Ala	Asp	Arg	Lys	Arg	Ala	Ile	Gly
				590				595						600
Phe	Val	Val	Gly	Gln	Thr	Asp	Trp	Glu	Lys	Ile	Thr	Asp	Glu	Ser
				605				610						615
Gly	His	Leu	Ala	Glu	Lys	Ala	Leu	Asn	Arg	Thr	Lys	Tyr	Ile	
				620				625						

<210> 9  
<211> 445  
<212> PRT  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte Clone No: 3979009

<400> 9  
Met Asn Arg His Leu Cys Val Trp Leu Phe Arg His Pro Ser Leu  
1 5 10 15  
Asn Gly Tyr Leu Gln Cys His Ile Gln Leu His Ser His Gln Phe  
20 25 30  
Arg Gln Ile His Leu Asp Thr Arg Leu Gln Val Phe Arg Gln Asn

35	40	45
Arg Asn Cys Ile Leu His Leu Leu Ser	Lys Asn Trp Ser Arg Arg	
50	55	60
Tyr Cys His Gln Asp Thr Lys Met Leu	Trp Lys His Lys Ala Leu	
65	70	75
Gln Lys Tyr Met Glu Asn Leu Ser Lys	Glu Tyr Gln Thr Leu Glu	
80	85	90
Gln Cys Leu Gln His Ile Pro Val Asn	Glu Glu Asn Arg Arg Ser	
95	100	105
Leu Asn Arg Arg His Ala Glu Leu Ala	Pro Leu Ala Ala Ile Tyr	
110	115	120
Gln Glu Ile Gln Glu Thr Glu Gln Ala	Ile Glu Glu Leu Glu Ser	
125	130	135
Met Cys Lys Ser Leu Asn Lys Gln Asp	Glu Lys Gln Leu Gln Glu	
140	145	150
Leu Ala Leu Glu Glu Arg Gln Thr Ile	Asp Gln Lys Ile Asn Met	
155	160	165
Leu Tyr Asn Glu Leu Phe Gln Ser Leu	Val Pro Lys Glu Lys Tyr	
170	175	180
Asp Lys Asn Asp Val Ile Leu Glu Val	Thr Ala Gly Arg Thr Thr	
185	190	195
Gly Gly Asp Ile Cys Gln Gln Phe Thr	Arg Glu Ile Phe Asp Met	
200	205	210
Tyr Gln Asn Tyr Ser Cys Tyr Lys His	Trp Gln Phe Glu Leu Leu	
215	220	225
Asn Tyr Thr Pro Ala Asp Tyr Gly Gly	Leu His His Ala Ala Ala	
230	235	240
Arg Ile Ser Gly Asp Gly Val Tyr Lys	His Leu Lys Tyr Glu Gly	
245	250	255
Gly Ile His Arg Val Gln Arg Ile Pro	Glu Val Gly Leu Ser Ser	
260	265	270
Arg Met Gln Arg Ile His Thr Gly Thr	Met Ser Val Ile Val Leu	
275	280	285
Pro Gln Pro Asp Glu Val Asp Val Lys	Leu Asp Pro Lys Asp Leu	
290	295	300
Arg Ile Asp Thr Phe Arg Ala Lys Gly	Ala Gly Gly Gln His Val	
305	310	315
Asn Lys Thr Asp Ser Ala Val Arg Leu	Val His Ile Pro Thr Gly	
320	325	330
Leu Val Val Glu Cys Gln Gln Glu Arg	Ser Gln Ile Lys Asn Lys	
335	340	345
Glu Ile Ala Phe Arg Val Leu Arg Ala	Arg Leu Tyr Gln Gln Ile	
350	355	360
Ile Glu Lys Asp Lys Arg Gln Gln Gln	Ser Ala Arg Lys Leu Gln	
365	370	375
Val Gly Thr Arg Ala Gln Ser Glu Arg	Ile Arg Thr Tyr Asn Phe	
380	385	390
Thr Gln Asp Arg Val Ser Asp His Arg	Ile Ala Tyr Glu Val Arg	
395	400	405
Asp Ile Lys Glu Phe Leu Cys Gly Gly	Lys Gly Leu Asp Gln Leu	
410	415	420
Ile Gln Arg Leu Leu Gln Ser Ala Asp	Glu Glu Ala Ile Ala Glu	
425	430	435
Leu Leu Asp Glu His Leu Lys Ser Ala	Lys	
440	445	

<210> 10  
<211> 280

<212> PRT  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte Clone No: 3992058

<400> 10  
Met Val Ala Arg Arg Lys Cys Ala Ala Arg Asp Pro Glu Asp  
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Arg Ile Pro Ser Pro Leu Gly Tyr Ala Ala Ile Pro Ile Lys Phe  
20 25 30  
Ser Glu Lys Gln Gln Ala Ser His Tyr Leu Tyr Val Arg Ala His  
35 40 45  
Gly Val Arg Gln Gly Thr Lys Ser Thr Trp Pro Gln Lys Arg Thr  
50 55 60  
Leu Phe Val Leu Asn Val Pro Pro Tyr Cys Thr Glu Glu Ser Leu  
65 70 75  
Ser Arg Leu Leu Ser Thr Cys Gly Leu Val Gln Ser Ile Glu Leu  
80 85 90  
Gln Glu Lys Pro Asp Leu Ala Glu Ser Pro Lys Glu Ser Arg Ser  
95 100 105  
Lys Phe Phe His Pro Lys Pro Val Pro Gly Phe Gln Val Ala Tyr  
110 115 120  
Val Val Phe Gln Lys Pro Ser Gly Val Ser Ala Ala Leu Ala Leu  
125 130 135  
Lys Gly Pro Leu Leu Val Ser Thr Glu Ser His Pro Val Lys Ser  
140 145 150  
Gly Ile His Lys Trp Ile Ser Asp Tyr Ala Asp Ser Val Pro Asp  
155 160 165  
Pro Glu Ala Leu Arg Val Glu Val Asp Thr Phe Met Glu Ala Tyr  
170 175 180  
Asp Gln Lys Ile Ala Glu Glu Ala Lys Ala Lys Glu Glu Glu  
185 190 195  
Gly Val Pro Asp Glu Glu Gly Trp Val Lys Val Thr Arg Arg Gly  
200 205 210  
Arg Arg Pro Val Leu Pro Arg Thr Glu Ala Ala Ser Leu Arg Val  
215 220 225  
Leu Glu Arg Glu Arg Arg Lys Arg Ser Arg Lys Glu Leu Leu Asn  
230 235 240  
Phe Tyr Ala Trp Gln His Arg Glu Ser Lys Met Glu His Leu Ala  
245 250 255  
Gln Leu Arg Lys Lys Phe Glu Glu Asp Lys Gln Arg Ile Glu Leu  
260 265 270  
Leu Arg Ala Gln Arg Lys Phe Arg Pro Tyr  
275 280

<210> 11  
<211> 130  
<212> PRT  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte Clone No: 4011179

<400> 11  
Met Ala Arg Gly Val Val Ser Ala Lys Gly Gly Ala Val Ala Gly

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Lys	Lys	Gly	Pro
Ser	Val	Ser	Phe
Asp	Ile	Thr	Cys
20	25	30	
Val	Glu	Asp	Lys
Ile	Asp	Lys	Ile
Met	Met	Glu	Val
35	35	40	45
Gln	Glu	Arg	Ile
Arg	Ile	Lys	Val
Ala	Val	Gly	Gly
50	55	55	60
Asp	Ser	Val	Thr
Ile	Ser	Arg	Glu
Glu	Lys	Thr	Lys
65	70	70	75
Ser	Asp	Gly	Pro
Phe	Ser	Lys	Arg
Tyr	Leu	Tyr	Leu
80	85	85	90
Lys	Tyr	Leu	Lys
His	Lys	Asn	Val
Arg	Asn	Val	Arg
Asp	Arg	Asn	Val
110	110	115	120
Ile	Ala	Glu	Asn
Glu	Gly	Glu	Glu
125	130		

<210> 12  
<211> 226  
<212> PRT  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte Clone No: 5425219

<400> 12

Met	Ser	Asn	Tyr	Val	Asn	Asp	Met	Trp	Pro	Gly	Ser	Pro	Gln	Glu
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Lys	Asp	Ser	Pro	Ser	Thr	Ser	Arg	Ser	Gly	Gly	Ser	Ser	Arg	Leu
							20		25				30	
Ser	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Phe	Ser	Arg	Ser	Ser	Arg	Ser
							35		40				45	
His	Ser	Arg	Val	Ser	Ser	Arg	Phe	Ser	Ser	Arg	Ser	Arg	Arg	Ser
							50		55				60	
Lys	Ser	Arg	Ser	Arg	Ser	Arg	Arg	Arg	His	Gln	Arg	Lys	Tyr	Arg
							65		70				75	
Arg	Tyr	Ser	Arg	Ser	Tyr	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser
							80		85				90	
Arg	Arg	Tyr	Arg	Glu	Arg	Arg	Tyr	Gly	Phe	Thr	Arg	Arg	Tyr	Tyr
							95		100				105	
Arg	Ser	Pro	Ser	Arg	Tyr	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg
							110		115				120	
Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly	Arg	Ala	Tyr	Ala	Ile	Ala	Arg
							125		130				135	
Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg	Thr	Val	Tyr	Pro	Glu	
							140		145				150	
His	Ser	Arg	Trp	Arg	Asp	Arg	Ser	Arg	Thr	Arg	Ser	Arg	Ser	Arg
							155		160				165	
Thr	Pro	Phe	Arg	Leu	Ser	Glu	Lys	Asp	Arg	Met	Glu	Leu	Glu	
							170		175				180	
Ile	Ala	Lys	Thr	Asn	Ala	Ala	Lys	Ala	Leu	Gly	Thr	Thr	Asn	Ile
							185		190				195	
Asp	Leu	Pro	Ala	Ser	Leu	Arg	Thr	Val	Pro	Ser	Ala	Lys	Glu	Thr
							200		205				210	
Ser	Arg	Gly	Ile	Gly	Val	Ser	Ser	Asn	Gly	Ala	Lys	Pro	Glu	Lys
							215		220				225	

Ser

<210> 13  
<211> 296  
<212> PRT  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<223> Incyte Clone No: 5522684

<400> 13

Met	Ala	Gly	Pro	Leu	Gln	Gly	Gly	Gly	Ala	Arg	Ala	Leu	Asp	Leu
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Leu	Arg	Gly	Leu	Pro	Arg	Val	Ser	Leu	Ala	Asn	Leu	Lys	Pro	Asn
					20				25					30
Pro	Gly	Ser	Lys	Lys	Pro	Glu	Arg	Arg	Pro	Arg	Gly	Arg	Arg	Arg
				35					40					45
Gly	Arg	Lys	Cys	Gly	Arg	Gly	His	Lys	Gly	Glu	Arg	Gln	Arg	Gly
				50				55						60
Thr	Arg	Pro	Arg	Leu	Gly	Phe	Glu	Gly	Gly	Gln	Thr	Pro	Phe	Tyr
				65				70						75
Ile	Arg	Ile	Pro	Lys	Tyr	Gly	Phe	Asn	Glu	Gly	His	Ser	Phe	Arg
				80				85						90
Arg	Gln	Tyr	Lys	Pro	Leu	Ser	Leu	Asn	Arg	Leu	Gln	Tyr	Leu	Ile
				95				100						105
Asp	Leu	Gly	Arg	Val	Asp	Pro	Sér	Gln	Pro	Ile	Asp	Leu	Thr	Gln
				110				115						120
Leu	Val	Asn	Gly	Arg	Gly	Val	Thr	Ile	Gln	Pro	Leu	Lys	Arg	Asp
				125				130						135
Tyr	Gly	Val	Gln	Leu	Val	Glu	Glu	Gly	Ala	Asp	Thr	Phe	Thr	Ala
				140				145						150
Lys	Vai	Asn	Ile	Glu	Val	Gln	Leu	Ala	Ser	Glu	Leu	Ala	Ile	Ala
				155				160						165
Ala	Ile	Glu	Lys	Asn	Gly	Gly	Val	Val	Thr	Thr	Ala	Phe	Tyr	Asp
				170				175						180
Pro	Arg	Ser	Leu	Asp	Ile	Val	Cys	Lys	Pro	Val	Pro	Phe	Phe	Leu
				185				190						195
Arg	Gly	Gln	Pro	Ile	Pro	Lys	Arg	Met	Leu	Pro	Pro	Glu	Glu	Leu
				200				205						210
Val	Pro	Tyr	Tyr	Thr	Asp	Ala	Lys	Asn	Arg	Gly	Tyr	Leu	Ala	Asp
				215				220						225
Pro	Ala	Lys	Phe	Pro	Glu	Ala	Arg	Leu	Glu	Leu	Ala	Arg	Lys	Tyr
				230				235						240
Gly	Tyr	Ile	Leu	Pro	Asp	Ile	Thr	Lys	Asp	Glu	Leu	Phe	Lys	Met
				245				250						255
Leu	Cys	Thr	Arg	Lys	Asp	Pro	Arg	Gln	Ile	Phe	Phe	Gly	Leu	Ala
				260				265						270
Pro	Gly	Trp	Val	Val	Asn	Met	Ala	Asp	Lys	Lys	Ile	Leu	Lys	Pro
				275				280						285
Thr	Asp	Glu	Asn	Leu	Leu	Lys	Tyr	Tyr	Thr	Ser				
				290				295						

<210> 14  
<211> 2297

<212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <223> Incyte Clone No: 046926

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 gatggagtat atggcagaat ccaccgaccg cagccctgga cacatctgt gctgtgagt 180  
 tggtgtccg ataagtccaa atcctgcca tatttgttg gcctgttgc gaagtaagt 240  
 ggacatcgc caaggtattc cgaaaacaagt ctcgatttc ttctgcaaac aatgtcaag 300  
 gtatttcaa ccaccaggaa cttggataca gtgtgcttta gaatccaggaa aacttcttc 360  
 tttgtgctt aaaaaaatca aagccctct gagtaaggta cggctgttag atgcaggctt 420  
 tgtttgact gaggctcatt ctaagagact taaagttaa ctgactattt agaaaagagg 480  
 gatgaatggt gctatccttc aacaagtgtt tgtggtgat tatgttggtc agtcccaa 540  
 gtgtggagat tgccatagaa tagaaactaa ggatttctgg aaggctgtga ttcaagtgg 600  
 gcaaaagact ttgcataaaaaaa aaacttcta ctatctggaa cagttatcc taaaatatgg 660  
 aatgcacatcg aatacacttc gtatcaaaga gattcatgtt ggtctggatt tttattattc 720  
 ctcaaaacaa catgctcaga agatgtcga atttcttcag tgtacagtcc cctgttagata 780  
 caaagcatca caaagactga tctctcaaga tatccatagt aacacataca attacaaaag 840  
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 ggctgagatg cttgaagacc ttcatatttc ccaagatgcc actggtaag aagggtcatc 1620  
 aatgcgtaca taatgagatg ttgttagactg tttccatatac tgggcttaag aagttggaca 1680  
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 aattttacat ttggaaatttt atcactgtgc ttttttatat gaggcactgt agtatttca 1920  
 catagtatag tactctggat gtaaaagctc aaaaattgtt attccttgcgaa ctttactaa 1980  
 atcttcaagc aaaaacacat ttttacatta ttttacgtt gattattttt gtaaaagacc 2040  
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 ttatgtgtt gaggttagga aatttaggtt cagtttatca ctggacattc aggaggcaag 2160  
 tcaatctttt ttatccctt ataaaattaa ctcttcaaaa gctgttaaac agagagttat 2220  
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 agagactcgat tatttaa 2297

<210> 15  
 <211> 2144  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <223> Incyte Clone No: 618791

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 gccatgtcgg cccggcgagggt cgagcgccata gtgtcggagc tgacggcg ggaccggaggg 240  
 gatgaggagg aagagtggct ctatggcgcc ccatgggacg tgcattgtgc aagtgatttg 300  
 gcaaaggacc tagatgaaaaa tgaagttgaa aggccagaag aagaaaatgc cagtgctaatt 360  
 cctccatctg gaatttgaaga tgaaactgct gaaaatggtg taccaaaacc gaaagtact 420  
 gagaccgaag atgatagtga tagtgcacagc gatgatgatg aagatgatgt tcattgtcact 480  
 ataggagaca ttaaaaacggg agcaccacag tatgggagtt atggtagc acctgttaat 540  
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 gacccggat caccttggaa catataatggaa gttccactt tagaggtaga tttggattct 660  
 tttgaagata aaccatggcg taaaacctggt gctgatctt ctgattattt taattatggg 720  
 tttaaatggaa atacctggaa agcttactgt gaaaacaaa agaggatacg aatgggactt 780  
 gaagttatac cagtaacctc tactacaaat aaaattacgg ccgaagactg tactatggaa 840  
 gttacaccag gtcagagat ccaagatggc agattcaatc ttttaaggt acagcaggaa 900  
 agaactggaa actcagagaa agaaaactgcc cttccatcta caaaagctga gtttacttct 960  
 cctcccttctt tttcaagac tgggcttcca ccgagcagaa acagcacttc ttctcagtct 1020  
 cagacaagta ctgcctccag aaaagccaaat tcaaggcttg ggaagtggca ggatcgatata 1080  
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 actataacta tcagccgagt agaaggcagg cgacgggcaa atgagaacag caacatacag 1200  
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 <213> Homo sapiens

<220>  
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 aaattgtcaa catgggacgg agatctacat catccaccaa gagtggaaaaa tttatgaacc 240  
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<220>  
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 <213> Homo sapiens

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 <213> Homo sapiens

<220>  
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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/16644

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7	C12N15/12	C12N5/10	C07K14/47	C12N15/00	A01K67/027
	C12Q1/68	C07K16/18		A61K38/00	

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

STRAND, EPO-Internal, WPI Data, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WILSON R ET AL: "2.2 MB OF CONTIGUOUS NUCLEOTIDE SEQUENCE FROM CHROMOSOME III OF C. ELEGANS" NATURE, GB, MACMILLAN JOURNALS LTD. LONDON, vol. 368, no. 6466, 3 March 1994 (1994-03-03), pages 32-38, XP002029739 ISSN: 0028-0836 the whole document ---	1
A	WO 98 23744 A (INCYTE PHARMA INC ;BANDMAN OLGA (US); GOLI SURYA K (US)) 4 June 1998 (1998-06-04) the whole document ---	1 -/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## ° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

17 January 2001

25.04.2001

Name and mailing address of the ISA

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Authorized officer

CHAMBONNET, F

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/16644

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	EMBL ACCESSION NUMBER Q9Y2Z6; SEQUENCE CHARACTERISATION CGI-07 PROTEIN. <i>Homo sapiens (Human).</i> DT 01-NOV-1999 (TrEMBLrel. 12, Created) Lin W.-C.; "Comparative gene cloning: Identification of novel human genes with <i>C. elegans</i> proteome as template."; XP002157664 the whole document -----	1

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 00/16644

### Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see further information sheet invention group1.

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:  
a) an amino acid sequence consisting of SEQ ID NO:1,  
b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:1,  
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:1,  
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:1; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:14; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

2. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:  
a) an amino acid sequence consisting of SEQ ID NO:2,  
b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:2,  
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:2,  
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:2; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:15; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

3. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:3,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:3,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:3,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:3; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:16; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

4. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:4,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:4,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:4,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:4; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:17; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

5. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:5,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:5,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:5,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:5; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:18; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

6. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:6,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:6,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:6,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:6; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:19; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

7. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:1,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:1,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:1,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:1; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:21; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

8. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:8,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:8,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:8,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:8; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:214; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

9. Claims: partially 1-27

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:9,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:9,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:9,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:9; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:22; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

10. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:10,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:10,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:10,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:10; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:23; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

11. Claims: partially 1-27

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:11,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:11,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:11,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:11; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:24; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

12. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:12,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:12,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:12,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:12; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:25; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds, of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

13. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

selected from the group consisting of:

- a) an amino acid sequence consisting of SEQ ID NO:13,
- b) a naturally occurring amino acid sequence having at least 90% sequence identity to SEQ ID NO:13,
- c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:13,
- d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:13; an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:26; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically binds to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

PCT/US 00/16644

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 9823744 A	04-06-1998	US 5962226 A	AU 7410598 A	05-10-1999 22-06-1998